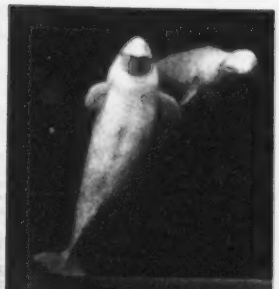
churchillnorthernstudiescentre



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THE BIRDFISH

SPRING 09

Churchill Northern Studies Centre Newsletter

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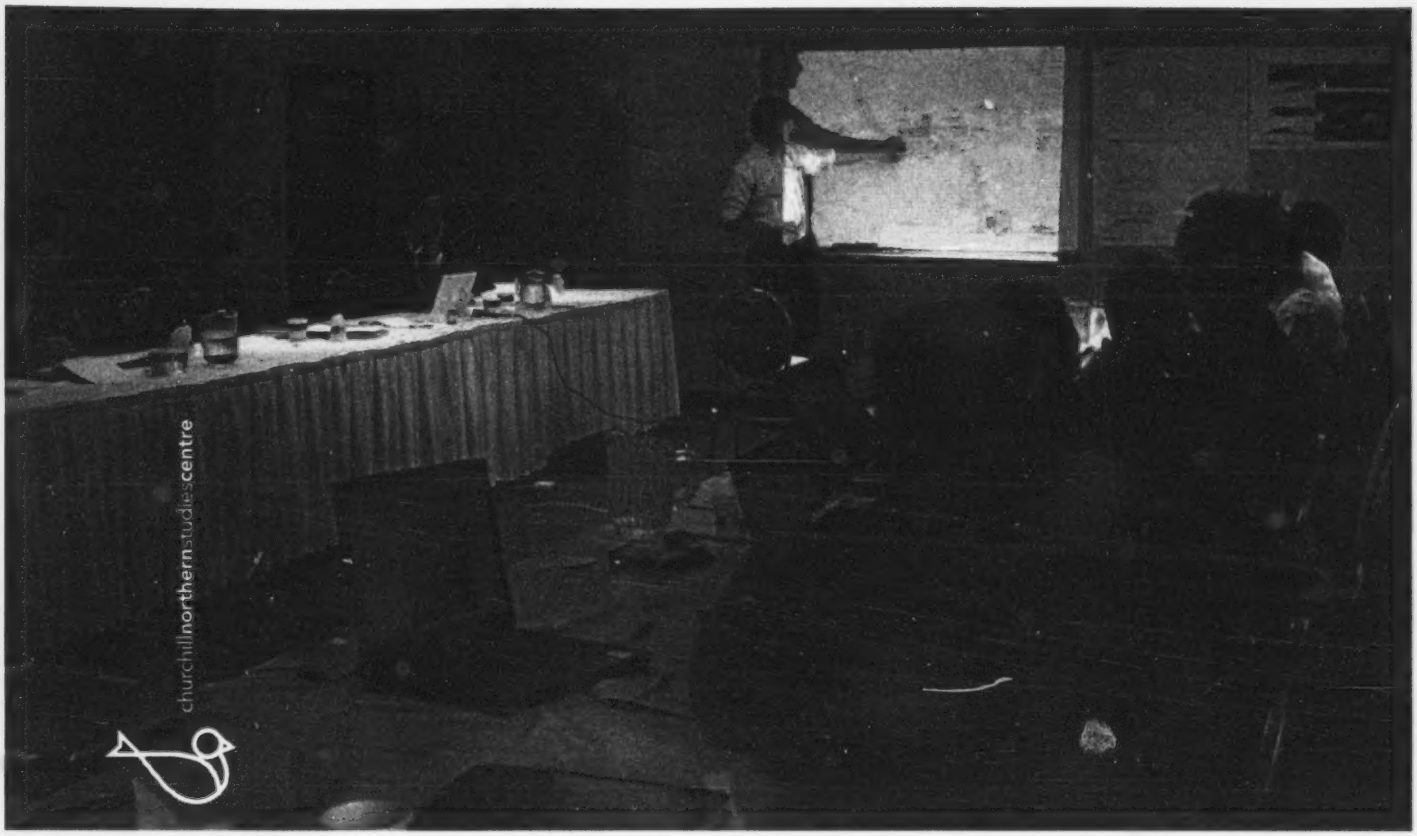


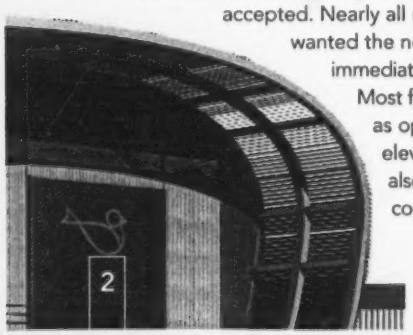
Meeting in downtown Winnipeg to discuss new ideas for the upcoming Centre. *Photo: Susanne Vande Vyvere*

Designing the New CNSC

And Survey Says...

FRIENDS AND CLIENTS OF THE CNSC ARE, apparently, a very practical bunch. And that's a good thing, because in many respects the most difficult part of planning the new CNSC will be to accommodate the many needs of our diverse clientele. As part of the integrated design process *(see Birdfish Winter 2009)* the CNSC, with the assistance of Prairie Architects and Integrated Designs Inc., developed an online design survey to help answer some fundamental questions related to the design of the new CNSC. In all, 127 people participated in the survey. The majority of respondents were researchers (64), but also included staff (13), instructors (8), course participants (16), community members and other friends of the CNSC (26). Not everyone answered every question, but an average of 90-98 responses were given to most. Here is some of what you told us.

Some aspects of building design were almost universally accepted. Nearly all respondents, for example, wanted the new building to be located immediately east of the existing facility. Most favoured a two storey structure as opposed to a single level or elevated building. The majority also felt it would be best to consolidate key functions, such as the dormitories and labs, in one location (as opposed to scattered throughout the building), but to insure that there was good separation between them with efficient traffic flow and sound proofing.



Responses to other questions related to building design were less clear cut. While most respondents felt it was important to provide a safe link between the existing and new buildings, there was little consensus on the best way to achieve this connection. When it came to security features, many asked, *"Why do we have to pick just one, when the new building could be designed to incorporate all of them?"* There were many strong opinions on the function of the existing CNSC building, but most agreed that it must remain an important and vibrant part of the new complex. Researchers were also somewhat divided over the design of laboratory work spaces. This is not surprising when you consider that in an average year the CNSC supports nearly 75 different projects in the biological, physical and social sciences.

The most entertaining aspect of the survey review had to be reading the responses to the section on possible exterior designs and interior features. A variety of pictures of existing facilities ranging from the circumpolar north to the Antarctic were provided. Many of these images were specifically designed to illicit strong reactions and some were included to

Survey participants expressed a strong desire that the new building be as "green" as our funding will allow. This reaffirms the CNSC's commitment to target a LEED Platinum designation.

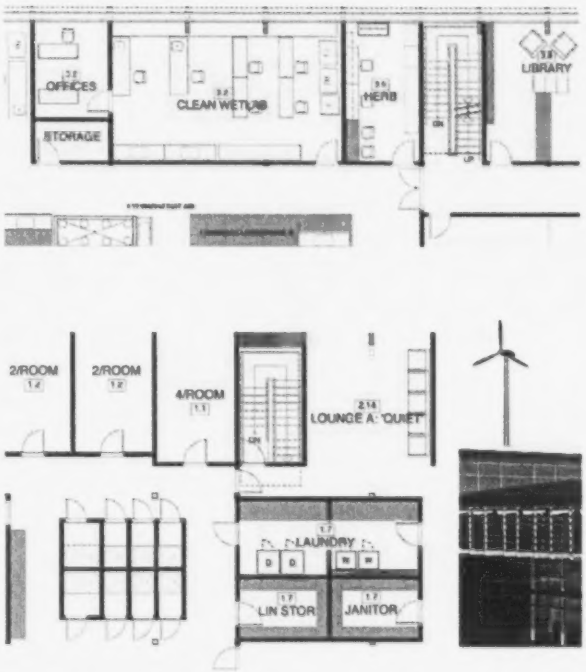
be purposefully provocative. Once again, practicality was the rule, rather than the exception. Natural lighting scored high, but not if it came at the expense of energy efficiency. A showcase design would be an asset for the CNSC, but should not be so costly as to compromise the quality of the laboratories. Two people per room in single beds would be ideal, but many commented that this wouldn't be the best use of space and that well designed bunks, limited to two per room, would be acceptable. The use of natural materials, the incorporation of green space and the inclusion of a fitness room also figured prominently.

Perhaps the most revealing aspect of the survey is that while everyone would appreciate more bathrooms, showers and personal space, they felt it was critical to maintain the intimate and interactive nature of the CNSC. Non-credit course participants appreciate the opportunity to interact with researchers and researchers value the potential for collaboration with colleagues outside of their normal academic environment. The CNSC is committed to insuring that our new building retains this intimacy, while respecting the need for researchers to effectively carry out their work.

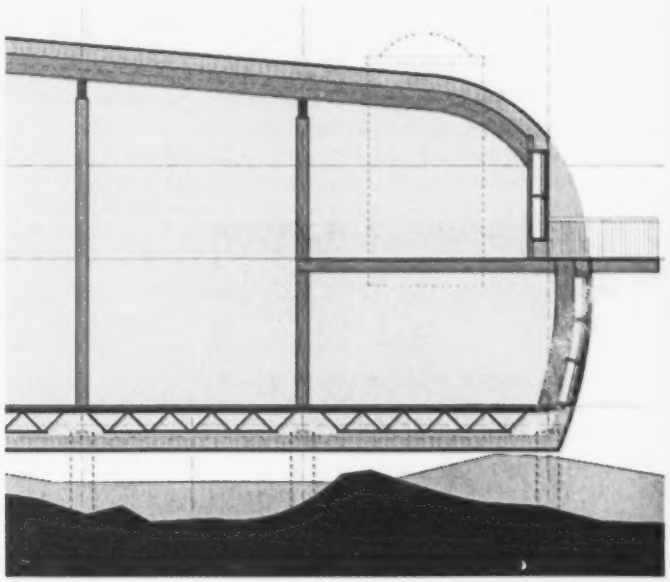
Lastly, survey participants expressed a strong desire that the new building be as "green" as our funding will allow. This reaffirms the CNSC's commitment to target a LEED Platinum designation.

If you haven't yet had an opportunity to comment on the design of the new CNSC, there will be one more chance to do so once the draft plans are complete. The Centre will also be hosting a community open house in Churchill this summer. Thanks so much to everyone who took the time to provide their feedback and ideas. Please visit our website for complete survey results and details on the upcoming open house.

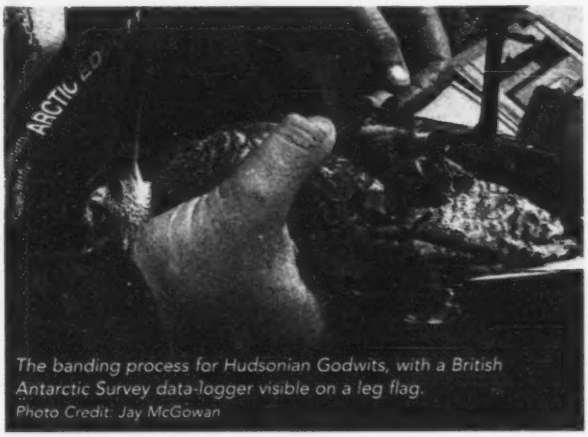
By the way, if you were the one person who actually liked the neon blue, aliens have landed, *"How on Earth do you get into it?"* Antarctic behemoth, please contact us immediately - counsellors are standing by. ❄



Proposed sections of the new Center, including labratories, dorms and even a wind turbine.



Research in Action



The banding process for Hudsonian Godwits, with a British Antarctic Survey data-logger visible on a leg flag.
Photo Credit: Jay McGowan

The effects of climate change on Hudsonian Godwits *(Limosa haemastica)*

Nathan Senner, Ph.D. Candidate, Cornell University, Ithaca, NY

CLIMATE CHANGE HAS CAUSED THE EARLY ONSET of spring across much of the Northern Hemisphere. In response, many bird species have shifted the timing of their breeding efforts. Some species, however, have been unable to shift their breeding efforts enough to match the shift in the phenology of the resources that are necessary to raise their young. It is hypothesized that the discrepancy between lay date and peak food abundance is caused in part by limitations imposed by the arrival date of migratory birds on their breeding grounds. In order to disentangle the relationship between arrival and lay date, it is necessary to first understand the factors affecting the timing of events throughout a species' annual cycle. Nathan is using a combination of geolocation-tracking devices and breeding studies to elucidate the relationship between migration strategy, breeding success, and habitat phenology in the Hudsonian Godwit *(Limosa haemastica)*.

Nathan is placing 75 data-loggers on Hudsonian Godwits from each of the three breeding populations to follow the migration routes and stopover site usage of individuals over the course of three years. These individuals will be chosen randomly from adults followed throughout the course of an initial breeding season. Marked individuals will be monitored-nest success, habitat use, and territoriality-during two subsequent breeding seasons. Additionally, he will be monitoring habitat phenology at each site, focusing on the timing of hatch and peak abundance of insects and identifying characteristics of godwit breeding habitat.

Nathan has recently begun analyzing historical arrival data for Hudsonian Godwits at two of their major breeding sites-Anchorage, Alaska and Churchill, Manitoba. Trends differ greatly between these two sites, with arrival in Anchorage becoming 8.12 days earlier, while at Churchill (from 1973-1994), arrival became 11.26 days later **(Figure 1)**. Analysis of broad scale climactic factors also suggests that the arrival dates of these two populations are correlated with different variables along their migration routes.

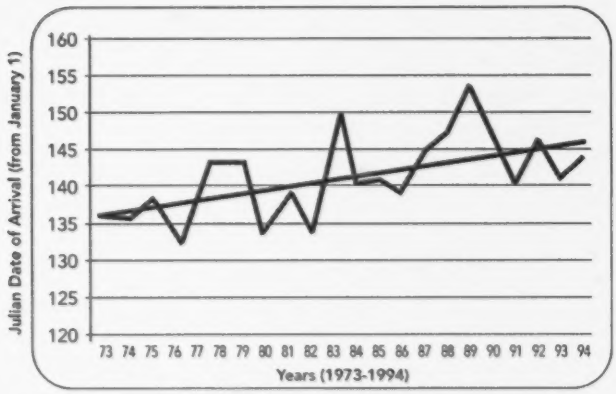


Figure 1. Historical arrival date in Julian Days for Churchill, Manitoba (1973-1994). Slope=0.5364, R^2=0.3263

A female Hudsonian Godwit standing in typical breeding habitat.
Photo Credit: Thomas Johnson

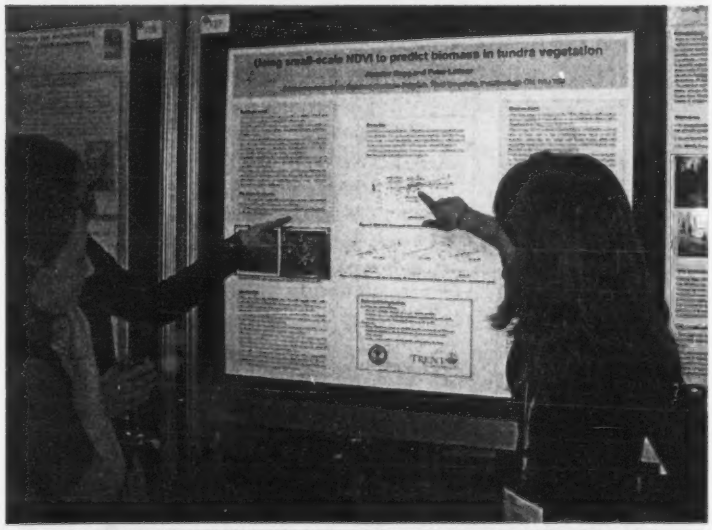
Also of interest, two birds marked in Churchill during the summer of 2008 were re-sighted during the boreal fall and winter of 2008. One adult male was re-sighted on its southbound migration in central Ohio during early October. A second adult male was re-sighted on the north side of the Strait of Magellan in southern Chile, offering the first direct evidence of a connection between the Hudson Bay breeding population and the Tierra del Fuego wintering population. Both birds were carrying data-loggers and will hopefully be returning in 2009 to Churchill.

Visit the ebird website to find out more information about how you might be able to assist Nathan with his research!

http://ebird.org/content/ebird/news/help-solve-the-mystery-of-hudsonian-godwit-migration

Arctic Change 2008

Carley Basler, CNSC Research Technician, attended the Arctic Change 2008 Conference in Quebec City in early December. This was an amazing opportunity for her to take in presentations by researchers that she has met in the field and has assisted in sample and data collection at the CNSC. The meeting venue was packed with multiple presentations going on every 15 minutes for the entire four days. Carley reported that *"at times it was hard to choose what room I should be sitting in because all of the topics being presented were equally appealing."* Another highlight was the evening poster sessions, which were a nice way to see a snapshot of the different types of projects going on throughout the Arctic and to be able to ask researchers informal questions. It was really great to see some of our researchers out there with their finished products, making new contacts for research in the Churchill area and learning about research taking place in other northern areas.



Science **WORD** of the Day

Phe-nol-o-gy (f_-n_l'_-j_) *n.* The study of periodic biological phenomena, such as flowering, breeding, and migration, especially as related to climate.

One More Long-Service Award...

Success at last! Gillian and Peter Craddock, along with former Program Coordinator Heather MacLeod (middle), following the inaugural 2006 tea tray sliding competition.

March 25, 2009

Dear Mike and All,

Thanks for the latest *Birdfish*, always a welcome arrival in the letter box. We, too, wish to claim a long-term award: *"Longest-serving, least competent students"*.

Here is the basis of our claim:

1992 Arrived in Churchill independently - at Easter - to view bears. Informed, *"They ain't around at this time of year."* Discovered CNSC, Janet Miller in charge. Janet told us when to return to - possibly - see bears. Took ourselves off South to read our guides properly.

1993 Returned for polar bear course. Retook course 1998 and 2001. Did we pass?

1997 Returned for Survival course. Distracted by presence of offspring and aurora. Failed igloo building module. Retook course 2006. Avoided igloo module and scraped (!) a pass in quinzhee. Survived Cafe Franklin.

1994 First aurora course. Starman very formidable. Retook course 1995, 2001, and 2003. Starman still formidable, but resigned to permanent retake students.

2002 No course = no retake. A pilgrimage to walk Malcolm's trail and to erect the trail sign. Starman drawing dubious comparisons with other carpenters. Sign later blows over.

Also: Failed to see Ross' Gull, mis-identified sundry other birds, fell off snow machines on sundry occasions, and failed to keep up with Mike and LeeAnn.

One success: Gillian won the tea tray sliding competition, thus wrecking our 100% record.

That concludes our submission.

Best wishes,
Peter and Gillian

featured course

FOLLOW YOUR DREAMS, EXPERIENCE OUR NORTH

Wild Planet

Ecology of the Subarctic

August 15 – 20, 2009

$ 1250 CDN

Participants: 10

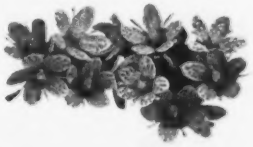
BOOK TODAY!

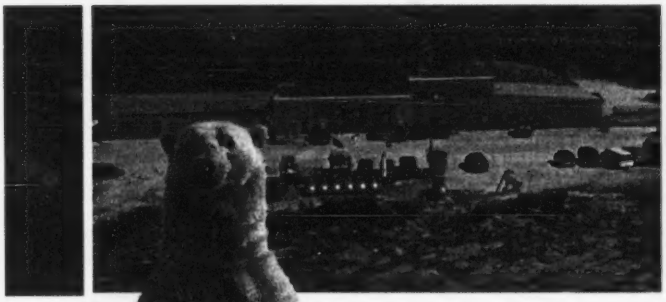
For those of you who want to visit Churchill to "try it all and see it all", the CNSC's last program of the summer *Wild Planet: Ecology of the Subarctic* is probably our most active and diversified course of the year.

The itinerary includes daily excursions to explore the boreal forest, tundra, intertidal zone, fen and coastal ponds. Informative evening lectures take you beyond the sights and sounds of Churchill to a deeper understanding of the ecology of this unique landscape. For those of you who would like a bird's eye view of the region's geography, this course also offers a brief helicopter tour over Wapusk National Park, one of Canada's newest parks. This is also a great opportunity to spot a moose or a caribou, so keep your eyes open! This end of the summer program also provides a last chance to see the beluga whales before they migrate out of the Churchill River for their wintering grounds. This boat tour will take you across the river to visit the Prince of Whales Fort, a unique historical site rich in cultural heritage.

A complete day is spent in town visiting the world renowned Eskimo Museum, Parks Canada's Interpretive Centre, and lunch at Gypsy's Bakery - where you can indulge in one of Manitoba's best apple fritters! End your stay with a cultural presentation by one of Churchill's aboriginal elders and our Traditional Food Night where you will taste caribou, arctic char, homemade bannock and local jams. ***You will leave Churchill with exciting knowledge, unforgettable memories and new friendships... guaranteed!***

Visit us at www.churchillscience.ca or call (204) 675-2307 to register for your summer adventure. Program staff are waiting to take your call. ❄





For more information on this and other exciting course offerings at the Churchill Northern Studies Centre, please visit www.churchillscience.ca and download our course brochure today! Well, what are you waiting for? ❄

Vous rêvez de découvrir une nouvelle region du Canada? De voir la toudra en fleur, les belugas avec leurs petits, ou encore les ours polaires se prélasser sur les roches glaciaires de la region de Churchill? Le Churchill Northern Studies Centre vous offre cette chance à travers des vacances éducatives. Il est encore temps de vous embarquer pour une aventure hors de l'ordinaire en réservant vos places pour l'un de nos programmes estivaux! Vous n'avez qu'à contacter CNSC au (204) 675-2307 ou encore à lui écrire à cnsc@churchillscience.ca

Ne tardez pas, les opportunities s'envolent rapidement!

Moving on...

After five years of dedicated support, Assistant Director, Dianne Howell, has recently left the CNSC to accept a position with the Town of Churchill. Best wishes in your new position, Dianne! We look forward to seeing you at our summer lecture series and other events.

Welcome aboard!

Avril Gilmour Ford, Summer Program Assistant, joins us from London, Ontario and will assist Marie with a wide variety of educational programming - from school groups to Elderhostel.

Familiar faces?

We're very pleased to welcome back the following seasonal employees: Katrina Jansen, Summer Research Technician; Robert and Rosalind Ellsworth and Audrey Chislett, Cooks.

Birdfish Direct to Your Inbox...

Well, spring may have sprung in most parts of the northern hemisphere, but here in Churchill we're still enjoying the snow! Thank you to all who have been renewing their memberships. We had a great response with our last mailing. You will notice a new check box on our membership renewal form. This is for those of you who would like to help us cut costs and conserve trees by receiving the *Birdfish* newsletter by email (.pdf format). If your membership is current and you would like to change your correspondence preference to email, simply send a short email to daley@churchillscience.ca

Design Winner

Congratulation to **Heather Sutton**, Kennesaw State University! Heather's name was chosen at random from all those who submitted suggestions and ideas for the design of our new building. Her prize? **A stylish CNSC hoodie, of course!**

Established in 1976, the Churchill Northern Studies Centre is an independant, non-profit research station located along the western coast of Hudson's Bay.

BOARD OF DIRECTORS:
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to understand and sustain the **north**

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The CNSC is a registered Canadian charity in part supported by the Manitoba Department of Advanced Education and Literacy.

The Birdfish Newsletter is produced by CNSC staff with assistance from researchers and program participants.

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contribute

to the Churchill Northern Studies Centre Capital Campaign

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Stay tuned for the upcoming annual fundraising edition of the *Birdfish* later this summer. In the meantime, your contribution is still needed to ensure that our redevelopment meets all the expectations that YOU, our participants, researchers, and members have for the future of the CNSC. No contribution is too small. Every gift counts.

And it's so easy...
Clip this form and mail it with your cheque payable to:
CNSC Capital Campaign, Churchill Northern Studies Centre, P.O. Box 610, Launch Road, Churchill, Manitoba, Canada, R0B 0E0;

Or visit our web site at www.churchillscience.ca and click on the big blue Donate button. This will take you to a secure site that exclusively handles donations to organizations like ours. Additional information about the security features is provided on the web page.

Or just give us a call at (204) 675-2307.

All donations will be recognized in campaign materials and annual reports unless you wish to remain anonymous. Tax receipts are provided for contributions over $25. We welcome all US donations. Contributions over $250USD are tax deductible. Contact Kim at **(204) 675-2307** or **daley@churchillscience.ca** for details.

CNSC Capital Campaign Contribution

Here is my support in the amount of $ _____

◯ **cheque or money order made payable to the CNSC Capital Campaign enclosed.** (Thanks! This saves us credit card fees.)

◯ Visa ◯ MasterCard ◯ American Express

card number: _____

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the Churchill Northern Studies Centre Today!

We rely on our membership to provide the support and funding needed to make the CNSC a place for world class research and education programs in the Canadian subarctic. Join us now and be part of these exciting times at the CNSC. Already a member? Use this form to ensure your membership remains current and YOU stay abreast of Centre activities.

Name: _____ E-mail: _____ Tel: _____

Address: _____ City: _____ Province/State: _____ Postal/Zip Code: _____

In accordance with the Personal Information Protection and Electronic Documents Act, names, addresses or other personal information collected by Churchill Northern Studies Centre is used for internal purposes such as informational mailings, membership renewals and other communications, and is not shared with any third party. Complete details of our privacy policy are available by contacting the CNSC.

◯ NEW* membership ◯ RENEW* my membership ◯ I would like to receive my copy of *Birdfish* in electronic form

◯ Individual $25 ◯ Student/Senior $20 ◯ Family $40 ◯ Corporate $500 *One-year CNSC membership

◯ I would like to send a one-year gift membership to:

Name: _____ Address: _____ City: _____ Province/State: _____ Postal/Zip Code: _____

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◯ I want to support CNSC. Here is my gift of $ _____

Tax receipts are provided for Canadian donations of $25 or more. Membership fees are not tax-deductible.

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P.O. Box 610, Launch Road
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or call (204) 675-2307

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Total amount $ _____

◯ **cheque or money order payable to the CNSC enclosed.** (Thanks! This saves us credit card fees.)

◯ Visa ◯ MasterCard ◯ American Express

card number: _____

expiration date (mm/yy): _____

name on card: _____

signature: _____

We appreciate your support of the Churchill Northern Studies Centre. Your donations support research and education that makes the world a better place. Thanks very much.

Cover Photo: Krista Hanis